Coronado National Forest

Arizona and New Mexico

F-819

Summer home in the pines

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
1928

Six Rules for Preventing Fire in the Forests

1. **Matches.**—Be sure your match is out. Break it in two before you throw it away.
2. **Tobacco.**—Be sure that pipe ashes and cigar or cigarette stubs are dead before throwing them away. Never throw them into brush, leaves, or needles.
3. **Making camp.**—Before building a fire, scrape away all inflammable material from a spot 5 feet in diameter. Dig a hole in the center and in it build your camp fire. Keep your fire small. Never build it against trees or logs or near brush.

F–28023

Fire in Bear Camp, Huachuca Mountains

4. **Breaking camp.**—Never break camp until your fire is out—dead out.
5. **Brush burning.**—Never burn slash or brush in windy weather or while there is the slightest danger that the fire will get away.
6. **How to put out a camp fire.**—Stir the coals while soaking them with water. Turn small sticks and drench both sides. Wet the ground around the fire. If you can't get water, stir in earth and tread it down until packed tight over and around the fire. Be sure the last spark is dead.

WHEN THE FOREST BURNS—EVERYBODY LOSES

THE CORONADO NATIONAL FOREST

The Coronado National Forest, named after Francisco Vasquez de Coronado, the Spanish explorer who traversed this region in 1540, embraces nearly a million and a half acres. It is made up of several detached mountain ranges which rise abruptly in contrasting shades of color from the surrounding semidesert plains or plateaus. These mountain ranges include portions of southeastern Arizona and the southwestern corner of New Mexico, touching the United States and Mexico international boundary in places.

The forest is readily accessible, railroads touch a large portion of the lower country, and good roads reach even into many of the higher mountain ranges. Many square miles within the forest previously inaccessible have been opened by trails suitable for horseback travel.

HISTORY

The region surrounding the forest has had an interesting part in the history of the Southwest. There are evidences of a prehistoric race in the remains of many ruined pueblos, cave dwellings, and irrigation works. Beginning with the advent of the Spanish Brother Marcos de Nega in 1539, the country was gradually colonized by the Spaniards, missions and churches being founded as a nucleus. In 1853 it was acquired by the United States as a part of the Gadsden Purchase, and the early pioneers finally wrested the country from the warlike Apaches after many sanguinary battles. With the coming of the railroads and the building of auto highways a new era of progress and development began, but traces of the past are still to be found in practically every mountain range and open plain.

RESOURCES

The forest furnishes timber, which includes post and fuel material of the woodland country, forage, minerals, water for irrigation, and opportunities for recreation.

Cave Creek in the Chiricahua Mountains F–30439

Forage for livestock is perhaps the most important resource. About 42,000 cattle are permitted to graze on the forest each year for an average period of between ten and eleven months, many of them remaining in the forest ranges yearlong. The upper

foothills and the mountain areas furnish an abundance and variety of grass and browse forage that is used mainly during spring, summer, and fall, with the lower foothills and semidesert mesas and plains grazed principally during winter. Small numbers only of swine and sheep are permitted on the Coronado.

A large part of the Coronado Forest consists of brush or grass-covered areas, of value primarily for watershed protection. These areas conserve both the surface and underground water supplies which make possible extensive irrigation in the valley lands.

The saw timber on the forest is estimated at 233,000,000 board feet, but much of the material is inaccessible. In one year, however, 88,000 board measure was sold. The woodland growth of juniper, cypress, oak, and piñon, estimated at 2,364,789 cords, is very valuable, since almost all of the supply of firewood and post material for this region is produced on the forest.

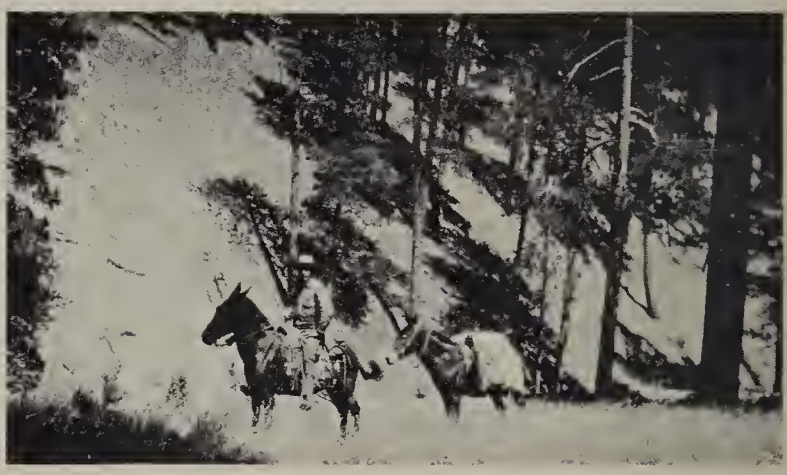
The flora of the Coronado Forest is widely diversified, including as it does those species of plants, shrubs, and trees common not only to the semidesert and the open plains, but also those which occur in the woodland foothills at about 3,000 feet elevation, and on the northerly slopes of the highest mountains at approximately 10,000 feet. A number of tree species of the Southwest are confined to very limited areas, and this is very noticeable on the Coronado Forest, where on certain mountain ranges Apache and Arizona pine, Chihuahua pine, Arizona cypress, and similar species reach their best development.

ADMINISTRATION

The forest is administered by a supervisor, with headquarters at Tucson, and by district rangers distributed over the forest as follows:

Ranger district	*Headquarters post office*
Animas	Cloverdale, N. Mex.
Catalina	Oracle, Ariz.
Dragoon-Whetstone	Cochise, Ariz.
Huachuca	Elgin, Ariz.
Paradise	Rodeo, N. Mex.
Rincon	Vail, Ariz.
Santa Rita	Greaterville, Ariz.
Sunset	Sunglow, Ariz.
Tumacacori	Nogales, Ariz.

The ranger force is augmented in early spring and summer by a temporary force of fire guards and lookout men to aid in the detection and suppression



F–165006

A forest ranger's camp outfit

of forest fires. Besides the duties involved in protecting the forest against fire, a district ranger has many other things to do. Among them might be mentioned the construction and maintenance of roads, trails, and telephone lines, the control of livestock using the range, and the marking and scaling of timber on forest sale areas. A ranger's work necessarily takes him into all parts of his district, and he is therefore in position to furnish reliable information to visitors.

RECREATION

The extensive road development of the past few years has made many areas of the forest accessible

by automobile. At the same time there are numerous places which can be reached only by foot or horseback travel. The trails afford camping, hiking, and pack trips for those who desire to get away from motor transportation.

Suitable areas have already been classified for recreational purposes; and improved public camp grounds, as well as tracts for commercial development and for summer homes, have been made available at modest annual rentals. Among these areas are the extensive summer-home developments in the Catalina Mountains, reached by a motor road from Tucson, the areas in lower Madera Canyon just off the main highway between Tucson and Nogales, and the high mountain country of the Chiricahua Mountains, northeast of Douglas, Ariz.

THE SANTA RITA RANGE RESERVE

The Santa Rita Range Reserve, located about 30 miles southeast of Tucson, was established and fenced in 1903 for the purpose of conducting experiments to improve the growth of range forage. It consisted of some 31,000 acres, which was later enlarged to include 50,000 acres, of typical southwestern range lands. The entire region had been heavily overgrazed for a number of years to a point where it was producing but a small part of the forage it could normally be expected to supply.

The early investigations were conducted by the Bureau of Plant Industry in cooperation with the University of Arizona and dealt chiefly with the rate of recovery of depleted ranges when put under protection, the feasibility of artificially reseeding range lands, and the carrying capacity of range lands. These investigations were continued when the Forest Service took over supervision of the area in 1915, and in addition studies were made to include management of cattle on the range.

The more recent investigations have very clearly shown that the great need of the whole stock indus-

try in the Southwest is a thorough understanding and application of a strictly conservative system of grazing use, together with more adequate development of range water. The best grazing land on the reserve, which is a fair sample of the best grazing lands in the Southwest, will not carry more than one cow a year to every eighteen or twenty acres over an average period of years, while the poorer areas require as much as fifty to sixty acres to keep a cow for a year. Estimates of the numbers of stock a range will carry must be made on the basis of a subnormal year, and in addition to this certain areas should be entirely protected from grazing during the growing season and held in reserve for critical seasons of the year. Adequate development of permanent range waters was found to be as important as proper stocking of the ranges.

Livestock losses on the reserve from starvation, lack of water, sickness, disease, and other causes have been reduced to about 3 per cent (including all ages of stock) as compared with the 10 or 15 per cent average for the region. Calf crops have averaged 73 per cent over the past 12-year period as compared with less than 50 per cent for the region as a whole. By far the greater part of the decrease in losses and the increase in calf crop can be traced directly to the keeping of an adequate supply of feed and water, which has kept the cattle in thrifty condition throughout the year.

Improvement in the grade of stock has likewise been outstanding, as is evidenced in the accompanying photos showing a group of yearlings at the start of the experiments and another group of yearlings from the same herd about five years later. Here again is emphasized the value of conservative stocking; for little or no improvement can be expected in the general type and size of cattle without an adequate supply of feed to enable them to attain the fullest possible growth.

Visitors are always welcome at the Santa Rita Range Reserve, where the personnel will gladly arrange field trips covering all phases of the investigative work.

Sold in November, 1918

F–174384

Sold in January, 1923

CHIRICAHUA NATIONAL MONUMENT

One of the most recently created national monuments in the Southwest is the Chiricahua, located on the west slope of the mountains of that name in Cochise County, Ariz.

This monument consists of a series of fields of large rhyolitic monoliths eroded into many fantastic shapes. The area is cut by deep-walled canyons, some of the walls being about 200 feet in height; and there are pillars, balanced rocks, and formations

F–188752

Balanced-rock formations, Chiricahua National Monument

resembling animals, faces, etc., scattered over the entire area. Interesting as are many of the individual rocks, still more impressive are the groups, which are often separated by fissures resembling streets or passageways between tall buildings. The colors are

unusual, the grayish rhyolite of the rock forms, often covered with reddish lichen, making a decided contrast with the green of the oak brush and occasional western yellow pine.

FIRE

Fire is the greatest single enemy of the forest. Most of the forest fires in the past have been caused by camp fires left burning or by unextinguished matches or tobacco dropped on the inflammable litter of the forest floor. Fires started in such ways are preventable, since they are caused by carelessness or intentional disregard of public safety.

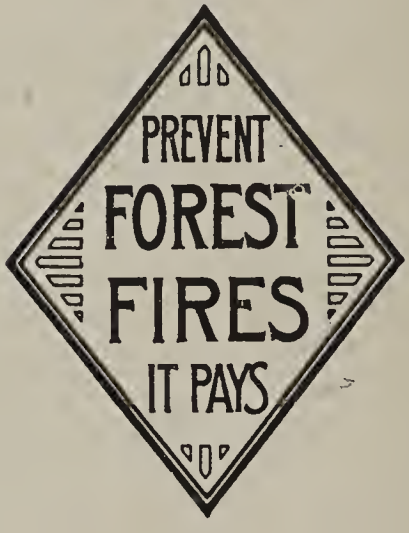
Before building a camp fire, always clear away all rubbish and dry material for a distance of two or three feet from the spot where the fire is to be built. Then make a hole or trench about 18 inches long, 12 inches wide, and 8 inches deep. A fire may be easily built in this hole, and there is very little danger that a sudden gust of wind will blow the sparks into the surrounding litter. When leaving camp, the camper should bury the fire with fresh earth devoid of twigs and needles, or drench it thoroughly with water.

Lighted matches and cigarette stubs should be pinched out, and pipe heels should be crushed into the earth in places where there is no inflammable material.

The practice of these safeguards will keep the forest green to enjoy from year to year. If a fire is accidentally started it can usually be put out while small with very little difficulty. If, however, the fire becomes too large to be handled, the local ranger should be notified promptly. Since the national forests are public property, any service rendered in their protection is not only a public duty but a public benefit as well.

PREVENT FOREST FIRES—IT PAYS

When hunting or fishing, respect the ranchman's property. Do not leave his gates open, cut his fences, disturb his stock, or shoot near his dwelling.



Everybody loses when timber burns. Be careful with your match, your cigarette, and your camp fire.

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R. Y. STUART, FORESTER

CORONADO NATIONAL FOREST
ARIZONA AND NEW MEXICO

1928

Scale 0 5 10 Miles

LEGEND

- Forest Boundary
- Roads (Auto.)
- Railroads
- Game Refuges
- Arroyo or dry streambed
- Permanent Water
- Ranger Stations
- Fire Lookout
- Supervisor's Headquarters

KEY MAP

LEGEND: RANGER STATION, FOREST LAND, ROADS

Oracle
Summer Haven
SOLDIER CAMP
CATALINA NATURAL AREA
CATALINA REC. AREA
CATALINAS
Tucson
UNIVERSITY OF ARIZONA
MAGNETIC OBSERVATORY
TANQUE VERDE MTNS.
SPUD ROCK
MANNING CAMP
RINCON MTNS.
RINCON
Happy Valley
Vail
Colossa Cave
PAPAGO IND. RES.
SAN XAVIER MISSION
Twin Buttes
Continental
SANTA RITA RANGE RESERVE
Helvetia
ROSEMONT
Greaterville
RANGE RES. SHOOTING
SANTA RITA MTS.
PIMA CO.
SANTA CRUZ CO.
MADERA CANYON REC. AREA
Mt. Hopkins
Old Baldy
Josephine Pk.
Sonoita
Elgin
COCHISE CO.
WHETSTONE MTS.
Apache Pass
Arivaca
TUMACACORI NATL MON.
TUMACACORI MTS.
Fragura Pk.
Ruby P.O.
Montana Pk.
PAJARITO MTNS.
Calabasas
Nogales
Patagonia
CANELO
Canelo
HUACHUCA MTNS.
Harshaw
Mowry
Washington
Duquesne
Lochiel
San Rafael
Sunnyside
FORT HUACHUCA MILITARY RES.
Fort Huachuca
HUACHUCA HILLS
SONORA
MEXICO
Railroad Pass
TO WILLCOX
TO GLOBE-SAFFORD
SOUTHERN PACIFIC
Bowie
San Simon
TO LORDSBURG, SILVER CITY, DEMING
DOS CABEZAS MTNS.
Dos Cabezas
Willcox
Johnson
Cochise
Dragon
Benson
DRAGON MTNS.
COCHISE STRONGHOLD
Pearce
Light
Courtland
Fairbank
Tombstone
TOMBSTONE HILLS
Gleeson
SULPHUR SPRINGS VALLEY
Elfrida
McNeal
SWISSHELM MTS.
Hereford
Bisbee
Lowell
Don Louis
Naco
Pirtleville
Douglas
Agua Prieta
CHIRICAHUA NATL MON.
Paradise
Portal P.O.
PORTAL
TURKEY CREEK
CHIRICAHUA RECREATION AREA
Rodeo
Chiricahua
PEDREGOSA MTS.
Bernardino
SAN BERNARDINO VALLEY
San Bernardino
ARIZONA
NEW MEXICO
COCHISE CO.
HIDALGO CO.
CHIRICAHUA MTNS.
CLOVERDALE
Animas
TO HACHITA
ANIMAS VALLEY
PLAYAS VALLEY
ANIMAS RANGE
Double Adobes
San Luis Pass
SAN LUIS MTNS.
Bramlett
WHITEWATER MTNS
CHIHUAHUA
MEXICO

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